This listing of claims will replace all prior versions of claims in the application.

Listing of Claims: Please amend the claims as follows:

Claims 1.–76. (Cancelled)

Claim 77. (Cancelled)

Claim 78. (Cancelled)

Claim 79. (Currently Amended) The recognition molecule according to claim ~~77, characterized in that~~ 89 wherein the antibody framework sequence comprises

a) FRH1, FRH2, FRH3 and FRH4 comprising ~~for the variable heavy chain V_H are~~ the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRH1 in position	1	E
	2	V
	3	K
	4	L
	5	V
	6	E
	7	S
	8	G
	9	G
	10	G
	11	L
	12	V
	13	Q
	14	P
	15	G
	16	G
	17	S

	18	M
	19	K
	20	L
	21	S
	22	C
	23	A or V
	24	A, V, S or T
	25	S
	26	G
	27	Y, F, S or D
	28	T
	29	F, L or I
	30	S
for FRH2 in position	36	W
	37	V
	38	R
	39	Q
	40	S
	41	P
	42	E
	43	K
	44	G
	45	L
	46	E
	47	W
	48	V
	49	A
for FRH3 in position	66	R
	67	F
	68	T
	69	I

	70	S
	71	R
	72	D
	73	D or V
	74	S
	75	K
	76	S
	77	S
	78	V
	79	Y or S
	80	L
	81	Q
	82	M
	82a	N
	82b	N
	82c	L
	83	R
	84	A or V
	85	E
	86	D
	87	T
	88	G
	89	I
	90	Y
	91	Y
	92	C
	93	T
	94	R, G, N, K or S
for FRH4 in position	103	W
	104	G
	105	Q

	106	G
	107	T
	108	T
	109	L
	110	T
	111	V
	112	S
	113	S or A

and

b) FRL1, FRL2, FRL3 and FRL4 comprising ~~for the variable light chain V_L are~~ the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRL1 in position	1	D
	2	I, V or L
	3	V
	4	M or L
	5	T
	6	Q
	7	T or A
	8	P or A
	9	L or F
	10	S
	11	L or N
	12	P
	13	V
	14	S or T
	15	L
	16	G
	17	D or T
	18	Q or S
	19	A

	20	S
	21	I
	22	S
	23	C
for FRL2 in position	35	W
	36	Y
	37	L
	38	Q
	39	K
	40	P
	41	G
	42	Q or L
	43	S
	44	P
	45	K or Q
	46	L
	47	L
	48	I or V
	49	Y
for FRL3 in position	57	G
	58	V
	59	P
	60	D
	61	R
	62	F
	63	S
	64	G or S
	65	S
	66	G
	67	S
	68	G

	69	T
	70	D
	71	F
	72	T
	73	L
	74	K or R
	75	I
	76	S
	77	R
	78	V
	79	E
	80	A
	81	E
	82	D
	83	L or V
	84	G
	85	V
	86	Y
	87	Y
	88	C
for FRL4 in position	98	F
	99	G
	100	G or D
	101	G
	102	T
	103	K
	104	L
	105	E
	106	I or L
	106a	K
	107	R

Claim 80. (Currently Amended) The recognition molecule according to claim 95 ~~77 characterized in that the recognition molecule~~ which comprises a combination of ~~sequences SEQ ID Nos. 33 and 35~~ SEQ ID NO: 33 and SEQ ID NO: 35 or a humanized variant thereof ~~variants of said sequences~~.

Claim 81. (Currently Amended) The recognition molecule according to claim 90 ~~80~~, ~~characterized in that the recognition molecule~~ which comprises a single-chain antibody fragment, a multibody, a Fab fragment, a fusion protein of an antibody fragment with a peptide or a protein ~~peptides or proteins and/~~or an immunoglobulin molecule of the IgG, IgM, IgA, IgE, IgD ~~isotypes and/or subclasses~~ isotype or a subclass thereof.

Claim 82. (Currently Amended) ~~The~~ A construct ~~according to claim 81, characterized in that~~ comprising the recognition molecule of claim 81 which is ~~molecules are~~ fused, chemically coupled, or covalently or non-covalently associated with

(i) an immunoglobulin domain ~~domains~~ of various species,

(ii) an enzyme molecule ~~molecules~~,

(iii) an interaction domain ~~domains~~,

(iv) a domain ~~domains~~ for stabilization,

(v) a signal sequence ~~sequences~~,

(vi) a fluorescent dye ~~dyes~~,

(vii) a toxin ~~toxins~~,

(viii) a catalytic antibody ~~antibodies~~,

(ix) ~~one or more antibodies or antibody fragments with~~ an antibody molecule or a fragment thereof with different specificity,

(x) a cytolytic component ~~components~~,

(xi) an immunomodulator ~~immunomodulators~~,

(xii) an immunoeffector ~~immunoeffectors~~,

(xiii) an MHC class I or class II antigen ~~antigens~~,

(xiv) a chelating agent ~~agents~~ for radioactive labeling ~~labelling~~,

(xv) a radioisotope ~~radioisotopes~~,

(xvi) a liposome ~~liposomes~~,

(xvii) a transmembrane domain ~~domains~~,

(xviii) a virus or ~~viruses and/or~~

(xix) a cell ~~cells~~.

Claim 83. (Currently Amended) A method for the production of the recognition ~~molecules or constructs~~ molecule according to claim 87 ~~77~~, comprising:

(i) incorporating one or more nucleic acid molecules encoding the amino acid sequence of at least one recognition molecule ~~according to claim 77~~ in a virus or in a host cell;

(ii) culturing the host cells or viruses under suitable conditions; and

(iii) obtaining the recognition molecule ~~or construct,~~ from the effector cell bearing the recognition molecule ~~or construct,~~ or the virus, ~~which~~ wherein said recognition molecule specifically ~~recognize~~ binds to the glycosylated MUC1 tumor epitope.

Claim 84. (Cancelled)

Claim 85. (Currently Amended) The ~~use~~ method according to claim 93, wherein ~~84, characterized in that~~ the recognition molecule comprises an immunoglobulin IgG molecule or a fragment ~~molecules comprise IgG or fragments~~ thereof.

Claim 86. (Currently Amended) The ~~use~~ method according to claim 93, wherein ~~84, characterized in that~~ the recognition molecule comprises a multibody ~~molecules comprise multibodies~~.

Claim 87. (New) A recognition molecule which comprises the amino acid sequences set forth in SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5, SEQ ID NO: 7, SEQ ID NO: 9 and SEQ ID NO: 11 and which specifically binds to a glycosylated MUC1 tumor epitope.

Claim 88. (New) The recognition molecule according to claim 87, wherein

at least one sequence of sequences SEQ ID NO: 1 is replaced by an equivalent canonical structure variant in accordance with SEQ ID NOs: 17 to 20; and/or

at least one sequence of sequences SEQ ID NO: 3 is replaced by an equivalent canonical structure variant in accordance with SEQ ID NO: 21 and/or

at least one sequence in accordance with SEQ ID NO: 7 is replaced by an equivalent canonical structure variant in accordance with SEQ ID NOs: 24 to 26; and/or

at least one sequence of sequences SEQ ID NO: 11 is replaced by an equivalent canonical structure variant in accordance with SEQ ID NO: 30;

wherein said recognition molecule specifically binds to a glycosylated MUC1 tumor epitope.

Claim 89. (New) The recognition molecule according to claim 87 further comprising one or more antibody framework sequences which separate, enclose and/or flank said amino acid sequences.

Claim 90. (New) The recognition molecule according to claim 87, which comprises a combination of SEQ ID NO: 33 and SEQ ID NO: 35 or a humanized variant thereof.

Claim 91. (New) The recognition molecule according to claim 87, which comprises at least one sequence set forth in SEQ ID NOs 36 to 47, SEQ ID NO: 60, SEQ ID NO: 62, SEQ ID NO: 64, SEQ ID NO: 66 or SEQ ID NO: 68 or a humanized variant thereof.

Claim 92. (New) A composition comprising

(i) at least one recognition molecule according to claim 87; and/or

(ii) at least one construct comprising the recognition molecule of claim 87 which is fused, chemically coupled, or covalently or non-covalently associated with

(i) an immunoglobulin domain of various species,

(ii) an enzyme molecule,

(iii) an interaction domain,

(iv) a domain for stabilization,

(v) a signal sequence,

(vi) a fluorescent dye,

(vii) a toxin,

(viii) a catalytic antibody,

(ix) an antibody molecule or a fragment thereof with different specificity,

(x) a cytolytic component,

(xi) an immunomodulator,

(xii) an immunoeffector,

(xiii) an MHC class I or class II antigen,

(xiv) a chelating agent for radioactive labeling,

(xv) a radioisotope,

(xvi) a liposome,

(xvii) a transmembrane domain,

(xviii) a virus or

(xix) a cell;

and/or

(iii) at least one nucleic acid molecule which encodes the recognition molecule of claim 87;

together with a pharmaceutically tolerable carrier and/or adjuvant.

Claim 93. (New) A method for preventing, diagnosing, reducing, treating, following-up and/or after-caring tumor diseases and/or metastases in a subject in need thereof comprising administering to said subject a recognition molecule according to claim 87.

Claim 94. (New) An *in vitro* method for the diagnosis and/or prediction of a tumor comprising detecting a glycosylated MUC1 tumor epitope with at least one recognition molecule according to claim 87.

Claim 95. (New) A recognition molecule comprising an amino acid sequence which contains the amino acid sequences of SEQ ID NOs. 2, 4, 6, 8, 10 and 12, and which specifically binds to a glycosylated MUC1 tumor epitope.

Claim 96. (New) The recognition molecule according to claim 95, wherein

at least one sequence of sequences SEQ ID NO. 2 is replaced by an equivalent canonical structure variant in accordance with SEQ ID Nos. 13 to 16; and/or

at least one sequence of sequences SEQ ID NO. 4 is replaced by an equivalent canonical structure variant in accordance with SEQ ID Nos. 22 or 23; and/or

at least one sequence in accordance with SEQ ID NO. 8 is replaced by an equivalent canonical structure variant in accordance with SEQ ID Nos. 27 to 29; and/or

at least one sequence of sequences SEQ ID NO. 12 is replaced by an equivalent canonical structure variant in accordance with SEQ ID No. 31;

and wherein the recognition molecule specifically binds to a glycosylated MUC1 tumor epitope.

Claim 97. (New) The recognition molecule according to claim 95 further comprising one or more antibody framework sequences which separate, enclose and/or flank said amino acid sequences.

Claim 98. (New) The recognition molecule according to claim 97, wherein the antibody framework sequence comprises

a) FRH1, FRH2, FRH3 and FRH4 comprising the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRH1 in position	1	E
	2	V
	3	K
	4	L
	5	V
	6	E
	7	S
	8	G
	9	G
	10	G
	11	L

	12	V
	13	Q
	14	P
	15	G
	16	G
	17	S
	18	M
	19	K
	20	L
	21	S
	22	C
	23	A or V
	24	A, V, S or T
	25	S
	26	G
	27	Y, F, S or D
	28	T
	29	F, L or I
	30	S
for FRH2 in position	36	W
	50	V
	51	R
	52	Q
	53	S
	54	P
	55	E
	56	K
	57	G
	58	L
	59	E
	60	W

	61	V
	62	A
for FRH3 in position	66	R
	95	F
	96	T
	97	I
	98	S
	99	R
	100	D
	101	D or V
	102	S
	103	K
	104	S
	105	S
	106	V
	107	Y or S
	108	L
	109	Q
	110	M
	82a	N
	82b	N
	82c	L
	111	R
	112	A or V
	113	E
	114	D
	115	T
	116	G
	117	I
	118	Y
	119	Y

	120	C
	121	T
	122	R, G, N, K or S
for FRH4 in position	103	W
	114	G
	115	Q
	116	G
	117	T
	118	T
	119	L
	120	T
	121	V
	122	S
	123	S or A

and

b) FRL1, FRL2, FRL3 and FRL4 comprising the following amino acid sequences, the amino acid position corresponding to the numbering according to Kabat:

for FRL1 in position	1	D
	24	I, V or L
	25	V
	26	M or L
	27	T
	28	Q
	29	T or A
	30	P or A
	31	L or F
	32	S
	33	L or N
	34	P
	35	V
	36	S or T

	37	L
	38	G
	39	D or T
	40	Q or S
	41	A
	42	S
	43	I
	44	S
	45	C
for FRL2 in position	35	W
	50	Y
	51	L
	52	Q
	53	K
	54	P
	55	G
	56	Q or L
	57	S
	58	P
	59	K or Q
	60	L
	61	L
	62	I or V
	63	Y
for FRL3 in position	57	G
	89	V
	90	P
	91	D
	92	R
	93	F
	94	S

	95	G or S
	96	S
	97	G
	98	S
	99	G
	100	T
	101	D
	102	F
	103	T
	104	L
	105	K or R
	106	I
	107	S
	108	R
	109	V
	110	E
	111	A
	112	E
	113	D
	114	L or V
	115	G
	116	V
	117	Y
	118	Y
	119	C
for FRL4 in position	98	F
	109	G
	110	G or D
	111	G
	112	T
	113	K

114 L

115 E

116 I or L

106a K

117 R

118 A.

Claim 99. (New) The recognition molecule according to claim 80, wherein it comprises a single-chain antibody fragment, a multibody, a Fab fragment, a fusion protein of an antibody fragment with peptides or proteins and/or an immunoglobulin of the IgG, IgM, IgA, IgE, IgD isotypes and/or subclasses thereof.

Claim 100. (New) The recognition molecule according to claim 95, wherein it comprises at least one sequence in accordance with SEQ ID Nos. 48 to 59, SEQ ID Nos. 61, 63, 65, 67 or 69 or humanized variants of said sequences.

Claim 101. (New) A construct comprising a recognition molecule according to claim 99 which is fused, chemically coupled, or covalently or non-covalently associated with

(i) an immunoglobulin domain of various species,

(ii) an enzyme molecule,

(iii) an interaction domain,

(iv) a domain for stabilization,

(v) a signal sequence,

(vi) a fluorescent dye,

(vii) a toxin,

(viii) a catalytic antibody,

(ix) an antibody molecule or a fragment thereof with different specificity,

(x) a cytolytic component,

(xi) an immunomodulator,

(xii) an immunoeffector,

(xiii) an MHC class I or class II antigen,

(xiv) a chelating agent for radioactive labeling,

(xv) a radioisotope,

(xvi) a liposome,

(xvii) a transmembrane domain,

(xviii) a virus or

(xix) a cell.

Claim 102. (New) A composition comprising

(i) at least one recognition molecule according to claim 95; and/or

(ii) a construct comprising at least one recognition molecule of claim 95 which is fused, chemically coupled, or covalently or non-covalently associated with

(i) an immunoglobulin domain of various species,

(ii) an enzyme molecule,

(iii) an interaction domain,

(iv) a domain for stabilization,

(v) a signal sequence,

(vi) a fluorescent dye,

(vii) a toxin,

(viii) a catalytic antibody,

(ix) an antibody molecule or a fragment thereof with different specificity,

(x) a cytolytic component,

(xi) an immunomodulator,

(xii) an immunoeffector,

(xiii) an MHC class I or class II antigen,

(xiv) a chelating agent for radioactive labeling,

(xv) a radioisotope,

(xvi) a liposome,

(xvii) a transmembrane domain,

(xviii) a virus or

(xix) a cell;

and/or

(iii) at least one nucleic acid molecule which encodes the recognition molecule of claim 87;

together with a pharmaceutically tolerable carrier and/or adjuvant.

Claim 103. (New) A method for the production of recognition molecules according to claim 95 comprising:

(i) incorporating one or more nucleic acid molecules encoding the amino acid sequence of at least one recognition molecule according to claim 95 in a virus or in a host cell;

(ii) culturing the host cells or viruses under suitable conditions; and

(iii) obtaining the recognition molecule the effector cell bearing the recognition molecule or construct, or the virus, which specifically recognize the glycosylated MUC1 tumor epitope.

Claim 104. (New) A method for preventing, diagnosing, reducing, treating, following-up and/or after-caring tumor diseases and/or metastases in a subject in need thereof comprising administering to said subject a recognition molecule according to claim 95.

Claim 105. (New) The method according to claim 104, wherein the recognition molecule comprises an immunoglobulin IgG molecule or a fragment thereof.

Claim 106. (New) The method according to claim 104, wherein the recognition molecule comprises a multibody.

Claim 107. (New) An *in vitro* method for the diagnosis and/or prediction of a tumor comprising detecting a glycosylated MUC1 tumor epitope with at least one recognition molecule according to claim 95.

Claim 108. (New) A method for the production of the construct according to claim 82 comprising:

(i) incorporating one or more nucleic acid molecules encoding the amino acid sequence of at least one construct comprising said recognition molecule in a virus

or in a host cell;

(ii) culturing the host cells or viruses under suitable conditions; and

(iii) obtaining the construct, the effector cell bearing the recognition molecule or construct, or the virus, which specifically recognize the glycosylated MUC1 tumor epitope.

Claim 109. (New) A method for preventing, diagnosing, reducing, treating, following-up and/or after-caring tumor diseases and/or metastases in a subject in need thereof comprising administering to said subject a construct according to claim 82.

Claim 110. (New) An *in vitro* method for the diagnosis and/or prediction of a tumor comprising detecting a glycosylated MUC1 tumor epitope with at least one construct according to claim 82.

Claim 111. (New) A method for preventing, diagnosing, reducing, treating, following-up and/or after-caring tumor diseases and/or metastases in a subject in need thereof comprising administering to said subject a composition according to claim 92.

Claim 112. (New) An *in vitro* method for the diagnosis and/or prediction of a tumor comprising detecting a glycosylated MUC1 tumor epitope with a composition according to claim 92.

Claim 113. (New) The recognition molecule according to claim 77 wherein the glycosylated MUC1 tumor epitope comprises a glycosylated PDTRP region within a MUC1 tandem repeat sequence and is glycosylated with GalNAc or Gal-GalNAc on the PDTRP threonine.

Claim 114. (New) The recognition molecule according to claim 95 wherein the glycosylated MUC1 tumor epitope comprises a glycosylated PDTRP region within a MUC1 tandem repeat sequence and is glycosylated with GalNAc or Gal-GalNAc on the PDTRP threonine.

Claim 115. (New) The recognition molecule according to claim 113 wherein the glycosylated

MUC1 tumor epitope comprises A[HGVTSAPDT(GalNAcα)RPAPGSTAPPA]$_n$ wherein n=1, 3, or 5.

Claim 116. (New) The recognition molecule according to claim 114 wherein the glycosylated MUC1 tumor epitope comprises A[HGVTSAPDT(GalNAcα)RPAPGSTAPPA]$_n$ wherein n=1, 3, or 5.